

REMARKS

The Office Action dated September 19, 2007 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-20, 22-26, and 29-31 have been amended to more particularly point out and distinctly claim the subject matter of the invention. New claims 32-34 have been added. No new matter has been added. Therefore, claims 1-34 are currently pending in the application and are respectfully submitted for consideration.

The Office Action rejected claim 25 under 35 U.S.C. § 101 as being directed to non-statutory matter. Specifically, the Office Action alleged that claim 25 is directed to a computer program and that a computer program falls under the category of a judicial exception which is non-statutory subject matter. The Office Action took the position that the claim must be amended to recite “a computer readable medium encoded with instructions which perform the following steps” to be directed to statutory subject matter. This rejection is respectfully traversed for at least the following reasons.

MPEP 2106.01 states that “functional descriptive material consists of data structures and computer programs which impart functionality when employed as a computer component.” MPEP 2106.01 also states that “when functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases.”

Claim 25 is directed to a “computer program embodied on a computer readable medium, the computer program configured to control a processor to decide a traffic flow control policy for controlling communications in a communication system, comprising: determining a type of an access network associated with communications via a gateway; and deciding a traffic flow control policy to apply to communications via the gateway based on information regarding the type of the access network.” Because these steps impart functionality when employed as a computer component, claim 25 is directed to functional descriptive material. Thus, because the computer program of claim 25 is embodied on a computer readable medium; claim 25 is directed to allowable subject matter. Therefore, Applicants respectfully request that this rejection be withdrawn.

The Office Action rejected claim 31 under 35 U.S.C. § 112, first paragraph, for failing to provide adequate written description. Specifically, the Office Action alleged that the “access network type determining means” and the “decision making means” of claim 31 are not described in the specification. This rejection is respectfully traversed because both the “access network type determining processor” and the “decision making processor” of the amended claim 31 are described in the specification.

Amended claim 31 recites that an apparatus comprises of “an access network type determining processor configured to determine a type of an access network.” The specification of the present application, on page 12, paragraph 0037, states “[i]n the embodiment of Figure 1 the gateway 40 is provided with an access network [type] determining means 41.” The specification further states that “[i]n the preferred

embodiment the [access network] type determination means comprise an appropriate software code product running on a processor provided in the gateway 40.” Additionally, Figure 1 of the specification identifies the access network determining means 41 and shows that it is part of gateway 40. Thus, the specification describes the “access network type determining processor” of amended claim 31 (and the “access network type determining means” of newly added claim 34).

Amended claim 31 also recites that a gateway comprises of “a decision making processor configured to decide a control policy to apply to communications via a gateway based on information of the type of the access network.” The specification of the present application, on page 20, paragraph 0062, states that “although Figure 3 shows an embodiment wherein the policy decision is made at an external policy control entity 52, it is possible for the gateway itself to decide the policy to be applied to a specific access bearer and/or service flow.” The specification further states that the gateway may be provided with appropriate software and hardware to provide the decision making functions and that in such a case, the decision making may be integrated with the access network determining means 41 of Figure 1. Thus, the specification describes the “decision making processor” of amended claim 31 (and the “decision making means” of newly added claim 34).

The Office Action rejected claim 31 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the present invention. Specifically, the Office Action alleged that “the metes and

bounds of the claim for an access network type determining means and decision making means” (i.e. claim 31) is indefinite because the “access network type determining means” and “decision making means” is not described in the specification or shown in any figure. This rejection is respectfully traversed because, as previously described, the specification describes the “access network type determining processor” and the “decision making processor” of amended claim 31; the specification describes the “access network type determining means” and the “decision making means” of newly added claim 34; and all of said phrases are shown in Figure 1 of the specification.

The Office Action objected to the drawings under 37 CFR 1.83(a). Specifically, the Office Action alleged that the drawings do not show every feature of the invention specified in the claim because both the “access type network determining means” and “decision making means” are not shown in the drawings. This objection is respectfully traversed because, as previously described, both the “access network type determining means” and the “decision making means” are shown in Figure 1 of the specification.

The Office Action rejected claims 1-7, 9-15, 20-24, and 26-31 under 35 U.S.C. § 102(b) as being anticipated by International Publication No. WO 00/44189 (“Rasanen”). The rejection is respectfully traversed for at least the following reasons.

Claim 1, upon which claims 2-24 are dependent, recites a method, which includes determining a type of an access network associated with communications via a gateway in a communication system. The method further includes deciding a traffic flow control

policy to apply to communications via the gateway based on information regarding the type of the access network.

Claim 26, upon which claims 27-30 are dependent, recites a communication system which includes different access networks, and a gateway configured to communicate with entities associated with the different access networks. The communication system further includes an access network type determination processor configured to determine a type of an access network of the different access networks, and a decision making processor configured to decide a traffic flow control policy to apply to communications via the gateway based on information of the type of the access network. The communication system is configured to control communications based on decisions by the decision making processor.

Claim 31, upon which claim 32 is dependent, recites an apparatus which includes an access network type determining processor configured to determine a type of an access network. The apparatus further includes a decision making processor configured to decide a traffic flow control policy to apply to communications via a gateway based on information of the type of the access network.

Claim 33 recites a communication system which includes different access networks and gateway means for communicating with entities associated with the different access networks. The communication system further includes access network type determination means for determining a type of an access network of the different access networks and decision making means for deciding a traffic flow control policy to

apply to communications via the gateway means based on information of the type of the access network. The communication system is configured to control communications based on decisions by the decision making means.

Claim 34 recites an apparatus, which includes access network type determining means for determining a type of an access network. The apparatus further includes decision making means for deciding a traffic flow control policy to apply to communications via a gateway based on information of the type of the access network, wherein the gateway control traffic flows based on decisions by the decision making means.

Thus, the embodiments of the invention enable access specific control of service provisioning in a communication system. According to the embodiments of the invention, flexibility of the communications system is improved, operational costs of a communication system is reduced, and operation of the communication system during an handover or other change of access network is improved.

As will be discussed below, Rasanen fails to disclose or suggest all of the elements of the claims, and therefore fails to provide the advantages and features discussed above.

Rasanen generally disclose a method of interworking between different radio access networks (RAN-A and RAN-B). In the method of Rasanen, a radio transceiver device capable of operating with the first radio access network (RAN-A) and the second radio access network (RAN-B) are attached to RAN-A. The method of Rasanen comprises the steps of detecting a service request, accessing information on conditions

for RAN-A and RAN-B for giving sufficient support for a service requested by the service request, analyzing whether or not RAN-A and RAN-B meet the conditions, and initiating a handover of the radio transceiver device from RAN-A to RAN-B if RAN-B meets the conditions but RAN-A does not. (See Rasanen at Abstract.)

Applicants respectfully submit that Rasanen fails to disclose, teach, or suggest, all of the elements of the present claims. For example, Rasanen fails to disclose, teach, or suggest, at least, “deciding a traffic flow control policy to apply to communications via the gateway based on information regarding the type of the access network,” as recited in claim 1, and similarly recited in claims 26, 31, and 33-34.

As described above, Rasanen discloses a method of interworking between different radio access networks (RAN-A and RAN-B). Rasanen discloses that a service request is analyzed. The network controlling device (i.e. the interworking unit (IWU) or the mobile services switching center (MSC) of the radio access network), detects that the requested service cannot be performed in a first network standard (e.g. UMTS network), but is supported by a second network standard (e.g. GSM network). A handover to a cell of the second network standard (e.g. GSM network) is initiated. (See Rasanen at column 11, line 34 – column 12, line 9).

Rasanen further discloses the process in which a requested service is supported by both radio access networks RAN-A and RAN-B. In this case the condition is not only whether the requested service is present, but it is also determined whether the first or the second radio access network supports the requested service more sufficiently. In other

words, it is analyzed whether the second radio access network supports a service quantitatively better. This quantitative amount can be defined by a norm or a threshold. The conditions as to whether the first radio access network, RAN-A supports the requested service more sufficiently than the second radio access network, RAN-B, can be set previously and stored in a database. If it is determined that the condition is met by the first radio access network, RAN-A, a normal procedure is carried out and the currently used radio access network, RAN-A is maintained. On the other hand, if it is determined that the condition is not met by the first radio access network, RAN-A, it is determined whether the condition is met by the second radio access network, RAN-B. If the condition is not met by the second radio access network, RAN-B, then the connection to the first radio access network, RAN-A, is maintained. If the condition is met by the second radio access network, RAN-B, a handover to the second radio access network, RAN-B is initiated. (see Rasanen at column 12, line 16 – column 14, line 24).

Applicants respectfully submit that Rasanen does not disclose, or suggest, the method described in the present application. The cited section of Rasanen discloses performing a handover from a first access network to a second access network in the event that: (1) the first access network does not support the service requested by the user; or (2) the first access network does not support the requested service as well as the second network. The technique described in the cited section of Rasanen does not involve deciding what flow control traffic policy to apply to communications via the first radio access network, but only involves analyzing whether the first access radio network

meets the conditions for supporting the requested service. Therefore, Rasanen fails to disclose or suggest deciding a flow control traffic policy to apply to communications via the first access network based on information regarding the type of the first access network.

To further clarify the subject matter of the invention, claims 1, 24-26, and 31 have been amended to recite a “flow traffic control policy,” instead of a “policy,” or a “control policy.” Applicants respectfully submit that support for this amendment is provided in the specification, for example paragraphs 0015 and 0043.

Thus, Rasanen fails to disclose, teach, or suggest, at least, “deciding a traffic flow control policy to apply to communications via the gateway based on information regarding the type of the access network,” as recited in claim 1, and similarly recited in claims 26, 31 and 33-34.

Therefore, for at least the reasons discussed above, Rasanen fails to disclose, teach, or suggest, all of the elements of claims 1, 26, 31, and 33-34. For the reasons stated above, Applicants respectfully request that this rejection be withdrawn.

Claims 2-7, 9-15, and 20-24 depend from claim 1. Claims 27-30 depend from 26. Thus, Applicants respectfully submit that claims 2-7, 9-15, 20-24, and 27-30 should be allowed for at least their dependence upon claims 1 and 26, respectively, and for the specific limitations recited therein.

The Office Action rejected claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Rasanen, in view of U.S. Patent No. 6,970,423 (“Chuah”). The Office Action took

the position that Rasanen discloses all the elements of the claim with the exception of “wherein the sending comprises sending the request, in which the request comprises another request for creation of a packet data protocol context.” The Office Action then cited Chuah as allegedly curing the deficiencies of Rasanen. The rejection is respectfully traversed for at least the following reasons.

The description of Rasanen is incorporated herein. Chuah generally discloses a Universal Mobile Telecommunications System (UMTS) core network which supports the negotiation of asymmetric traffic classes with a mobile station or user equipment. Chuah further discloses that a new quality of service information element is defined that allows for the mobile station to negotiate for asymmetric traffic classes. (see Chuah at Abstract.)

Applicants respectfully submit that the combination of Rasanen and Chuah fails to disclose, teach, or suggest, all of the elements of claim 8. Claim 8 depends upon claim 1. For the reasons stated above, Rasanen fails to disclose, teach, or suggest, at least, “deciding a traffic flow control policy to apply to communications via the gateway based on information regarding the type of the access network,” as recited in claim 1. Therefore, Applicants respectfully submit that Rasanen also fails to disclose, teach, or suggest, all the elements of claim 8. Furthermore, Chuah does not cure the deficiencies of Rasanen, as Chuah, whether considered individually, or combined with Rasanen, also fails to disclose, teach, or suggest, at least, “deciding a traffic flow control policy to apply to communications via the gateway based on information regarding the type of the access network,” as recited in claim 1. Therefore, Applicants respectfully submit that Chuah,

whether considered individually or combined with Rasanen, also fails to disclose, teach, or suggest, all the elements of claim 8.

For at least the reasons discussed above, the combination of Rasanen and Chuah fails to disclose, teach, or suggest, all of the elements of claim 8. Additionally, claim 8 should be allowed for its dependence upon claim 1, and for the specific limitations recited therein. Therefore, for the reasons stated above, Applicants respectfully request that this rejection be withdrawn.

The Office Action rejected claims 16 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Rasanen, in view of U.S. Patent No. 5,253,308 (“Johnson”). The Office Action took the position that Rasanen discloses all the elements of the claims with the exception of “resolving the address of an appropriate policy controller entity according to the gateway,” as recited in claim 16. The Office Action then cited Johnson as allegedly curing the deficiencies of Rasanen. The rejection is respectfully traversed for at least the following reasons.

The description of Rasanen is incorporated herein. Johnson generally discloses a massively parallel digital image data processor which provides a large number of processing elements arranged in a two-dimensional matrix form. Furthermore, Johnson further discloses that relative indexed addressing among the processing elements is provided, whereby image data may be easily accessed by and shared among all processing elements. A single-instruction/multiple data architecture provides instructions

to the processing elements in parallel in accordance with specific application programs. (see Johnson at Abstract.)

Applicants respectfully submit that the combination of Rasanen and Johnson fails to disclose, teach, or suggest, all of the elements of claim 16 and 17. Claims 16 and 17 both depend upon claim 1. For the reasons stated above, Rasanen fails to disclose, teach, or suggest, at least, “deciding a traffic flow control policy to apply to communications via the gateway based on information regarding the type of the access network,” as recited in claim 1. Therefore, Applicants respectfully submit that Rasanen also fails to disclose, teach, or suggest all the elements of claims 16 and 17. Johnson does not cure the deficiencies of Rasanen, as Johnson, whether considered individually, or combined with Rasanen, also fails to disclose, teach, or suggest, at least, “deciding a traffic flow control policy to apply to communications via the gateway based on information regarding the type of the access network,” as recited in claim 1. Therefore, Applicants respectfully submit that Johnson, whether considered individually or combined with Rasanen, also fails to disclose, teach, or suggest, all the elements of claims 16 and 17.

For at least the reasons discussed above, the combination of Rasanen and Johnson fails to disclose, teach, or suggest, all of the elements of claims 16 and 17. Additionally, claims 16 and 17 should be allowed for their dependence upon claim 1, and for the specific limitations recited therein. Therefore, for the reasons stated above, Applicants respectfully request that this rejection be withdrawn.

The Office Action rejected claims 18 and 19 under 35 U.S.C. § 103(a) as being unpatentable over Rasanen, in view of U.S. Publication No. 2003/0186692 (“Tamura”). The Office Action took the position that Rasanen discloses all the elements of the claims with the exception of “sending an inquiry for a subscription profile from a policy controller entity to a separate database,” as recited in claim 18. The Office Action then cited Tamura as allegedly curing the deficiencies of Rasanen. The rejection is respectfully traversed for at least the following reasons.

The description of Rasanen is incorporated herein. Tamura generally discloses a GPRS which is capable of realizing speed-up of PDP context establishment and reduction of call connection time. Tamura further discloses that at the time of the PDP context establishment, it is made possible to carry out bearer setting between a mobile station and a Serving GPRS Support Node (SGSN). The SGSN can select a flexible bearer setting procedure based upon traffic data and the like (e.g. stored contents of a history database) managed in its own node. (see Tamura at Abstract.)

Applicants respectfully submit that the combination of Rasanen and Tamura fails to disclose, teach, or suggest, all of the elements of claims 18 and 19. Claims 18 and 19 both depend upon claim 1. For the reasons stated above, Rasanen fails to disclose, teach, or suggest, at least, “deciding a traffic flow control policy to apply to communications via the gateway based on information regarding the type of the access network,” as recited in claim 1. Therefore, Applicants respectfully submit that Rasanen also fails to disclose, teach, or suggest all the elements of claims 18 and 19. Furthermore, Tamura does not

cure the deficiencies of Rasanen, as Tamura, whether considered individually, or combined with Rasanen, also fails to disclose, teach, or suggest, at least, “deciding a traffic flow control policy to apply to communications via the gateway based on information regarding the type of the access network,” as recited in claim 1. Therefore, Applicants respectfully submit that Tamura, whether considered individually or combined with Rasanen, also fails to disclose, teach, or suggest, all the elements of claims 18 and 19.

For at least the reasons discussed above, the combination of Rasanen and Tamura fails to disclose, teach, or suggest, all of the elements of claims 18 and 19. Additionally, claims 18 and 19 should be allowed for their dependence upon claim 1, and for the specific limitations recited therein. Therefore, for the reasons stated above, Applicants respectfully request that this rejection be withdrawn.

The Office Action rejected claim 25 under 35 U.S.C. § 103(a) as being unpatentable over Rasanen. The rejection is respectfully traversed for at least the following reasons.

Claim 25 recites a computer program embodied on a computer readable medium, the computer program configured to control a processor to decide a traffic flow control policy for controlling communications in a communication system. The computer program includes determining a type of an access network associated with communications via a gateway. The computer program further includes deciding a traffic

flow control policy to apply to communications via the gateway based on information regarding the type of the access network.

The description of Rasanen is incorporated herein. While claims 1 and 25 each have their own scope, Applicants respectfully submit that Rasanen fails to disclose, teach, or suggest, at least, “deciding a traffic flow control policy to apply to communications via the gateway based on information regarding the type of the access network,” as recited in claim 25 for similar reasons, stated above, as to why Rasanen fails to disclose, teach or suggest “deciding a traffic flow control policy to apply to communications via the gateway based on information regarding the type of the access network,” as recited in claim 1. Furthermore, the Office Action fails to provide a *prima facie* case that “deciding a traffic flow control policy to apply to communications via the gateway based on information regarding the type of the access network,” as recited in claim 25 would be obvious to one of ordinary skill in the art based on the subject matter that Rasanen discloses.

Therefore, for at least the reasons discussed above, Applicants respectfully submit that rejection is respectfully traversed. For the reasons stated above, Applicants respectfully request that this rejection be withdrawn.

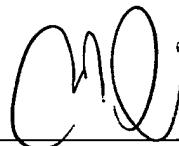
For at least the reasons discussed above, Applicants respectfully submit that the cited prior art references fails to disclose or suggest all of the elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention

unanticipated and unobvious. It is therefore respectfully requested that all of claims 1-34 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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Enclosures: Additional Claim Fee Transmittal
Check No. 17666